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Volume XII Number 8

September 1, 1928

BUREAU OF PLANT INDUSTRY
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THE PLANT DISEASE REPORTER

Issued by

THE OFFICE OF MYCOLOGY AND DISEASE SURVEY

Volume XII September 1, 1928 Number 8

MONTANA LOSSES FROM WHEAT STINKING SMUT OR BUNT IN 1928

In July and August, 1928, 146 fields of wheat were inspected by P. A. Young in conducting a plant disease survey of Montana for the Montana Agricultural Experiment Station and the U. S. Department of Agriculture. These representative fields were found in Stillwater, Treasure, Rosebud, Big Horn, Yellowstone, Fergus, Judith Basin, Fallon, Prairie and Gallatin Counties, in which severe damage occurred. The 146 fields covered 15,300 acres. In 41 fields aggregating 3,800 acres, 4 to 30 per cent of the heads were bunt, with an average around 10 per cent. Figuring on a conservative basis of 20 bushels per acre and a dollar per bushel, the wheat on this acreage would be 76,000 bushels worth $76,000 on which there was an economic loss of 10 per cent or $7,600 in yield alone. Costly smut dockage by the elevator increases the loss.

In 14 fields aggregating about 1,400 acres, 1 to 3 per cent of the heads were bunt, with an average of 2 per cent. Calculating as above, a loss of 2 per cent on 28,000 bushels would cost $560. Such wheat would grade smutty and additional loss would result from smut dockage by the elevator.

Traces of bunt occurred in many of the other fields of wheat. The estimated loss on the other 10,000 acres is only 0.25 per cent, causing an estimated loss of scarcely fifty cents per acre in yield, and no dockage at the elevator. Thus, controlling bunt in these fields was very profitable.

All the above fields were planted with strains of Turkey Red wheat, except two fields of smutty Crail Fife and 18 fields of Marquis. Two of the Marquis fields had 6 per cent bunt, and a third Marquis field had 17 per cent; these fields were east of Fallon in Prairie County.

Observations during this and previous years showed that stinking smut or bunt of wheat (caused by the parasitic fungus called Tilletia laevis) is usually controlled by the copper carbonate seed treatment. Careless treatment gives incomplete covering of the wheat with dust, so the smut spores are not all killed. Hence, the disease is not controlled well when treating is not thoroughly done. Some farmers secured good control this year with the formaldehyde and blue stone liquid treatments. When the seed is not very smutty, the 18 per cent copper carbonate appears to give control; but the 52 per cent copper carbonate is needed to control the disease on very smutty wheat.

NEW FORM OF OAT SMUT DESTRUCTIVE IN KANSAS

"Oat smut was more prevalent and more severe in Kansas in 1928 than I have ever seen it before. A new southern physiologic form is rapidly increasing in the state. Kanota which is resistant to the Kansas form has as much as 40 per cent smut in many fields. The new form was prevalent as far north as Manhattan. All varieties of oats grown commercially were heavily smutted this year." (Johnston, Aug.15).

CORN DISEASES IN FLORIDA

A. H. Eddins, who is studying corn diseases at the Florida Agricultural Experiment Station, has recently sent in a report on corn diseases as he found them in that state earlier in the year. He is now engaged in similar survey work and will doubtless have another report to make later on.

"On an inspection trip made from June 15th to June 19th in North and West Florida, brown spot (Physoderma zeae maydis) was found on corn in fields in twelve counties. The highest percentage infection was observed July 11 on a local strain of the Hastings variety growing on the Experiment Station Farm at Gainesville where 48 per cent of the plants had brown spot. The average percentage infection for the state is 15 per cent.

"Warm summer showers occurred periodically throughout the growing period of the corn crop. Conditions were favorable for infection to occur at a time when plants were susceptible to infection from Physoderma zeae maydis."

"Infection as a rule was limited to leaves, leaf sheaths and stalks on the lower part of the plant. In some few cases observed, the topmost leaves and the outer husks of the ears of plants were infected. Considerable lodging of the corn resulted from nodal infection. Usually the surface of old Physoderma lesions on the leaf sheaths were covered with a rank growth of Fusarium moniliforme and other Fusarium species.

"The estimated loss from brown spot this season is 5 per cent of the crop."

"The highest percentage of corn smut (Ustilago zeae) was noted in a local variety being grown near Gainesville. There was 7 per cent smut in this field. Other fields inspected at Gainesville and elsewhere in north and west Florida, had from 0.1 per cent to 5 per cent smut. The average for the state is 2 1/2 per cent smut. The estimated loss from corn smut in Florida is 1 per cent of the crop."

"Fusarium ear, stalk and root rot (Fusarium moniliforme, Fusarium spp.) is one of the most serious diseases of corn in Florida. Temperature and moisture conditions are favorable for the growth of Fusarium spp. on corn at the time the crop is maturing in Florida. Approximately 50 per cent of the plants in fields inspected had the Fusarium mold growing on the leaf sheaths and stalks at the nodes. Moldy ears and lodged stalks due to attacks of Fusarium moniliforme and Fusarium spp are present in corn fieldsthroughout the state.

"Preliminary studies made with the modified rag-doll seed corn tester, indicate that Fusarium mold is responsible for much of the poor germination of seed corn and seedling root rot."

"Diplodia dry rot of corn is very prevalent in Florida. Old stalks picked up in thirty fields in twelve counties in north and west Florida were examined and pycnidia of Diplodia zeae and Diplodia macrospora found on them. During the latter part of August moldy ears were found in corn fields near Gainesville. Observations made during the 1928 growing season indicate that Diplodia ear, stalk and root rot disease is one of the most destructive corn diseases in Florida."

"Rust (Puccinia sorghi) was not a serious disease of field corn in Florida during the season of 1928. Infected plants were always found in fields inspected. Usually rust was confined to the more vigorous growing plants. Infection was generally limited to the lower leaves with pustules few in number and scattered."

"Several different kinds of bacterial diseases were observed on corn leaves. Infected plants occurred scatteringly in fields throughout the state."

NOTES ON CORN SMUT FROM IOWA AND KANSAS

Iowa: Smut on corn came quite early this season and has caused considerable damage in some fields.
Certain inbred lines in the experimental plots show marked resistance. (Porter, August 8).

Kansas: More severe in north central Kansas than it has been in the past five years. The season has been very wet, but corn smut has developed very rapidly. Many fields show 25 to 40 per cent smut and many inbred lines have 100 per cent. (Johnston, August 15).

NOTES ON CORN DISEASES

Iowa: Brown spot (Physoderma zeae-maydis) was found for first time in Iowa by Drs. I. E. Melhus and C. S. Reddy simultaneously in one field about 12 miles west of Ames. Its prevalence was slight. A limited survey is now being made of other sections. (Porter, August 18).

Kansas: Bacterium stewarti very severe in sweet corn, especially Golden Bantam. There is more of this disease in field corn than is usually seen in Kansas. (Johnston, August 15).

Connecticut: Have seen twice what appears to be a bacterial leaf spot of sweet and field corn. It is at least new to Connecticut. (Clinton, August 15).

SCLEROSPORA GRAMINICOLA

Two reports of the occurrence of Sclerospora graminicola have been received.

Pennsylvania: Specimen of affected Setaria viridis collected by G. L. Zundel at Hyndman, Bedford County, August 8. Very abundant.

Montana: Mild infestation common on millet in eastern Montana, southwest South Dakota, and northeast Wyoming. Most common on wild Setaria in this region. Identification checked by Dr. W. H. Weston, Jr. (Young, August 1).

SOYBEAN DISEASES IN LOUISIANA

The following observations were made on a 450 mile trip through the sugar cane belt of the southwestern part of the state, including ten parishes.

Mosaic: Found quite generally over the cane belt where the Biloxi variety is grown in the rotation. There was not a very high infection percentage in any one field, approximately 10 to 15 percent. The disease is apparently more common in the Biloxi than in the Laredo or Otootan variety, and is generally associated with injury from the bean beetle.

Frog eye spot: This disease, caused by Cercospora diazu Miura, is quite widespread over the southwestern part of the state, very few plants entirely free from infection having been observed. In some fields the infection is severe enough to cause considerable defoliation, especially in the Laredo variety.

Bacterial leaf spot: This leaf spot, due to Phytomonas phaesoli sojense, also occurs generally over the sugar cane belt, but is much less conspicuous than the Cercospora leaf spot. The amount of actual damage is probably very slight.

Sclerotium wilt: An occasional plant killed by Sclerotium rolfsii was found, but much less of this trouble was observed than is usual at this time of the year. (Tims, Edgerton, and Christopher, August 8-11).

CERCOSPORA LEAF SPOT OF SOYBEANS FOUND IN GEORGIA

"This disease was collected in Habersham County in the northern part of the state on July 21. It was common in all fields inspected in that county, and was causing premature defoliation in one field. This is the first time I have observed the spot in the state."(Boyd, August 15).

RED CLOVER ANTHRACNOSE (GLOEOSPORIUM CAULIVORUM)

Maine: "Severe injury in variety test plots. Identified microscopically by Miss F. L. Markin. Search for evidence of bacterial disease by Lucia McCulloch gave negative results, so a single pathogen seems to be involved. Is recorded here for previous years." (Folsom, Aug. 15).

MORE REPORTS ON APPLE SCAB

Virginia: Apple scab has developed to a greater extent in the southern sections of the Valley of Virginia than in the northern section. This is due to the fact that the percentage of scab susceptible varieties is greater in that section and furthermore, spraying operations have not reached the point of development found in the northern section. In the Winchester section, scab is a disease of negligible importance except in unsprayed and very poorly sprayed orchards. (Schneiderhan).

Wisconsin: There is a very heavy late development of this disease in unsprayed or poorly sprayed orchards. The addition of an extra summer spray in July has afforded protection in many orchards. (Vaughan, September 1).

Minnesota: First reported July 2. Both primary and secondary infection present at this time. Dry weather up to week of June 16 prevented development. Common in orchards at present time but doing little damage. (Sec. Plant Path. August 1).

Iowa: Very prevalent and severe on unsprayed trees. It came on early and has been increasing in severity. (Porter, August 20).

Montana: This is a common disease in the west side of the state. It is nearly absent in the sprayed orchards, and usually present in serious amounts in the unsprayed orchards. (Young, August 22).

APPLE RUST REPORTS

Kentucky: Much more severe all over the state than usual. (Valleau, August 1).

Minnesota: Very severe locally. First spread during rainy period May 15 to 16. No general rain again until June 16. Rained most of the following week. Spore horns found extruded during both periods. Most reports received after wet weather in June. (Sec. Plant Path. August 1).

Iowa: More severe on apples than for many years. Many trees show 100 per cent of the leaves infected. (Porter, August 20).

Kansas: Prevalent everywhere. To date it appears that there is not so severe an infection as in 1927. (Elmer, August 1).

CRACKING OF APPLES

Virginia: Cracking of apples particularly Stayman, has been reported from all sections of Virginia. This trouble has been associated with excessive rainfall during the month previous to harvest time. (Schneiderhan)

Montana: Common and serious in fruit on many trees of Mackintosh apples in Ravalli County. No parasites are present but fruit is cracked worse than it is by scab or blotch. Severe russeting of a special form also occurs. The growers disprove the diagnosis of spray burn in most cases. It was seen in a few unsprayed orchards. (Young, Sept. 1).

A REPORT OF PEACH ROSETTE FROM ILLINOIS

What appears to be a typical case of peach rosette was found in Madison County near Troy, Illinois, on July 15. A specimen was sent in by the farm adviser and later I made a careful examination of the single tree. No other trees in this or other orchards in this region showed any evidence of the disease. Photographs and specimens were secured. In view of the recent appearance of rosette in Kentucky, this case may be significant. So far as I know, rosette has never been reported from Illinois. The roots and wood of the tree were normal, thus precluding winter injury. There was no fruit on the tree. (Anderson, August 1).

SPRAY INJURY OF PEACHES IN VIRGINIA

Widespread reports of injury on fruit and foliage of peach trees have been coming in. A special inspection trip covering the entire Valley of Virginia from Roanoke to Winchester, a distance of 185 miles, was made to determine the extent of the injury and to identify the causes.

We found that a small percentage of the trouble was caused by bacterial shothole. In fact this disease was strictly secondary as a cause of defoliation and leaf injury. The inspection of many peach orchards indicates quite clearly that the injury on the fruits, which may be described as sunken brown areas usually surrounded by a red halo even though the peaches are still green and followed by gummosis, is caused by the improper use of spray equipment and spray materials. On the leaves the injury is of a shothole nature but largely marginal. The lower margin of leaves were usually brown and disintegrated with a ragged edge. In extreme instances, heavy defoliation followed. On the twigs, typical dark brown areas especially at the union of petioles of leaves and usually accompanied by heavy gummosis was observed.

Upon reviewing the history of the spray schedule and the equipment used, we found that the heaviest injury followed the use of guns instead of rods in the orchard. Furthermore, it seems that most of the damage is caused by lead arsenic wherever it was used without an excess of lime. We also found injury of the same type following the use of dry mix sulfur=lime, self boiled lime sulfur, and sulfur dusts.

A correlation of this injury with weather conditions is quite probable. During the month of June, we had heavy and continuous rains. The heaviest rainfall in a decade was recorded at Winchester during June. The periodicity of rainfall was one rain every two days in June. This resulted in a heavy development of tender foliage which may have been more susceptible to spray injury than normally.

Striking instances of spray injury were noted in one orchard near Winchester. Unsprayed parts of one side of a row of trees bordering a corn field showed no injury on fruit or foliage while the other half of the same trees was nearly defoliated. Wherever the growers used the prescribed 1 pound of lead arsenate to 50 gallons of water, and added 4 pounds of either slaked lime or hydrated lime, the injury was negligible. Foliage injury amounted to 90 per cent in some orchards. In one orchard 85 per cent of peaches were injured. No varietal difference was noted. (Schneiderhan and Wingard.)

SHORT NOTES ON VARIOUS FRUIT DISEASES

Illinois: Apple blotch (Phyllosticta solitaria) is very severe in all sections of Illinois due to ideal weather during the infection period. Even well sprayed fruit shows some blotch. (Anderson, Aug. 1).

Virginia: Jonathan spot, King David spot and York spot are developing rapidly in Virginia especially King David spot which has been confused with scab because the spots are very dark green and resemble scab lesions at a distance. The percentage of these injurious spots is greater than normally this year. (Schneiderhan,)

Virginia: Peach scab (Cladosporium carpophilum) is more prevalent than usual on all varieties. One instance of 100 per cent of infection was noted on August 22 on Bilyeu peaches. (Schneiderhan)

Virginia: Brown rot of peaches (Sclerotinia fructicola) is more widespread and is causing more damage in Virginia this year than in any of the past six years. Heavy rainfall, together with injury caused by the oriental fruit moth, curculio, and the tarnished plant bug, have enabled the fungus to gain easy entrace to fruits. Brown rot is developing to an unusual extent in peaches in the market places. (Schneiderhan).

Illinois: An unusual number of cherry trees throughout Illinois are dying from what appears to be winter injury. This may be in part due to defoliation and subsequent late growth last year, but well sprayed orchards at Urbana which did not lose their foliage last year are dying. (Anderson, August 1).

Montana: Strawberry yellows, (Virus or weather?). Many fields of everbearing strawberries were inspected in Ravalli County, Montana. Some had high percentages of yellowed plants. Some growers think that the condition spreads. Diagnosis of the disease as the virus yellows is yet unproved. Yields are said to be affected. (Young, September 1).

Colorado: Cane blight (Leptosphaeria coniothyrium) has set in on the raspberry canes within the last month, and has caused a 100 per cent loss in foliage in many plantations, besides a decrease in the size of the fruit. (Le Clerg, September 1).

Florida: Anthracnose of Mango. Many mangoes in southern Florida are spotted by anthracnose and are rotting soon after picking. The fungus resembles Colletotrichum gloeosporioides, or is identical with it. (West, Sept. 1).

BACTERIAL BLIGHT OF WALNUT AND FILBERT LESS DAMAGING THIS YEAR IN OREGON

Bacterial Blight of filbert caused by a species of Bacterium is very much less severe throughout Willamette Valley than for several years. Most damage comes from girdling of 2 year old (about) stems and suckers by base cankers. The disease appears not to be actively running at this time. Only a few specimens could be obtained in many plantings visited in the valley August 17 and 18. (Barss, September 1).

Bacterium juglandis on walnut is very little in evidence in the state this year after two seasons of very severe losses from the attacks of this organism. There is, however, a trace of the disease in every grove that has been visited, but the general run of orchards will have no more than a trace of loss instead of 50 per cent or more as in the years preceding. (Barss, September 1).

PECAN SCAB SITUATION IN GEORGIA

Growers consider this season the most dangerous for pecan scab (Fusicladium effusum) that they have yet observed. There has been favorable weather for sporulation and infection off and on ever since the leaf buds opened in the spring. Instead of bringing dry weather as usual, August has been wet from the outset, and we are now in the midst of a second tropical storm with torrential rains. To make the matter worse, the pecan crop is about two weeks late this year, with comparatively young susceptible nuts during the recent and present infection periods. Where control measures have not been practiced this year, such varieties as Delmas, Schley and Alley will undergo nearly complete loss in the principal pecan section of the southern part of the state. The Van Deman and Mobile varieties will sustain considerable loss in the extreme southern section. Growers are finding it difficult to realize satisfactory control even where they follow recommendations for dusting or spraying. (Boyd, August 15).

NEW ONION DISEASE IN IOWA

Early in June of this year our department received a request from the onion growers of Pleasant Valley, in Scott County, Iowa, to come down and investigate a new disease which was appearing in the onion fields. Dr. I. E. Melhus made the first visit and decided that it was more like a mosaic disease than anything else. A study of the trouble was started immediately, and up to the present there is good evidence that the disease is a mosaic. It has been transmitted by artificial inoculation into the growing point of bulbs.

Symptoms consist of marked yellow streaks up and down the stems, and leaves, followed by loss of turgidity to the extent that the tops lop over on the ground. Such plants do not die at once but linger along without growth.

The first estimate of loss due to this disease was 25 per cent. This may be greater, however, by the end of the season. The disease appeared on Yellow Bottle Necks in the Pleasant Valley district, and simultaneously appeared at Washington, Iowa on one farm where the owner has been growing his own seed and sets for a number of years. (Porter, August 11).

LATE BLIGHT OF POTATO

Maine: Dr. W. J. Morse reports that on a trip through Aroostook County, August 25 to 26, late blight was seen to have caused severe damage in some fields. (Folsom, September 1).

Massachusetts: Late blight is becoming conspicuous in some of the potato fields in the southern part of Plymouth County, Massachusetts. Two fields in Rochester are showing about 80 per cent leaf infection, 60 per cent of the leaves being entirely dead, and 20 per cent showing one or more blight lesions per leaf. Tubers dug from these vines showed about 1 per cent rot. On the other hand, a field examined at Plymouth and another at Middleborough showed none of the disease. There has been an unusual amount of rain here all through the growing season. (Haskell, August 12)

New York: Late blight (Phytophthora infestans) was first observed on Long Island on June 22--the earliest date since the writer began work there in 1922. The disease has developed until it is apparent now that the loss will not be less than 25 per cent of the entire crop. Many fields either unsprayed or very poorly sprayed were completely defoliated by August 1st, and in these the yield will be about 100 bushels per acre in place of 200 to 250 bushels that is usually secured. The quality furthermore, will be low due to the small size. Tuber rot has not been serious yet. Growers state that blight has not caused such serious losses on Long Island in more than two other years during the past three decades. (Clayton, August 15).

West Virginia: The total crop for the state is estimated at 60,000 acres, and of this only a third (the commercial crop) is sprayed.

Wet weather during the early season prevented spray applications so that blight and other diseases gained a foothold. Undoubtedly many of the unsprayed patches will be a total loss. (Archer, Sept. 1).

North Carolina: Typical specimens received from Highlands, North Carolina, July 24. (Weiss, July 30).

Wisconsin: Dry weather following July infection has successfully checked blight except in a few local fields. Present in northern potato regions of the state, especially Oneida County. (Vaughan, Sept. 1).

BEAN DISEASE REPORT FROM MONTANA

Blight, (Bacterium phaseoli) is a common serious disease in the bean regions in the eastern half of the state. In 110 acres in 5 fields, most of the plants were spotted with 5 to 10 leaf spots per plant. (Young, August 1).

Halo blight (Phytomonas medicaginis phaseolicola). This serious disease of beans was identified by Miss Florence Hedges. I found it at Bozeman, Billings, Cartersville, and Miles City where it is prominent particularly in Burpee's Stringless greenpod bean. The above common name is quite convenient for it describes the broad yellow halo around the leaf spots, which is the convenient method of distinguishing this disease in the field from the one caused by Pseudomonas phaseoli. In several fields, it was already doing serious damage, and is still spreading. (Young, August 1).

Mosaic is particularly common and destructive in Great Northern beans in the bean sections around Billings, Forsyth, Miles City, and some places farther north. While some fields show no disease, many others showed 2 to 25 per cent mosaic, and 5 per cent was rather common. The yield will be decreased by mosaic almost in proportion to the severity of the symptoms in the individual plants. (Young, August 1).

GEORGIA WATERMELON DISEASES, 1928

This year watermelon diseases were numerous in the Coastal Plains section, and were very uniform in distribution. The unusually wet season did not seem to favor anthracnose spread as much as it did the amount of Cercospora, Diplodina, and Macrosporium leaf spots. Generally the Diplodina spot caused as severe foliage loss as did the anthracnose organism, and became widespread and locally severe earlier than anthracnose. Cercospora spot was general, but caused severe defoliation only in spots in fields. Both anthracnose and the Diplodina spot caused considerable injury to vines during the last week of commercial shipping. Then after most fields had been abandoned, but while the foliage was green, downy mildew suddenly swept over the entire melon section, "burning" the leaves completely within a few days time. This disease started around July 20, affecting cantaloupes as well. Wilt has not been so outstanding this year. Anthracnose pox was general with marked losses in some sections, especially in the later fields. (Boyd, Aug. 15).

BACTERIAL BLIGHT OF SQUASH (BACTERIUM CUCURBITAE)

This disease was found in abundance in a half-acre field of yellow crookneck summer squash in Brooks County, Georgia, in May. In Beaufort County, South Carolina, two small plantings of the same variety were found 100 per cent infected, and so heavily that even the youngest leaves showed some lesions while the oldest leaves were completely destroyed. (Bryan, August).

MISCELLANEOUS REPORTS ON VEGETABLE DISEASES

Wisconsin: Cabbage yellows (Fusarium conglutinans) is showing in Wisconsin wherever non-resistant seed was used on infected soil. With the prevalent high temperatures it will be a good season to test the resistance in new selections. (Vaughan, August 15).

New York: The Long Island cabbage seed crop was heavily attacked by mildew (Peronospora parasitica). (Clayton, Aug. 15).

New York: Mildew (Phytophthora phaseoli) appeared in lima beans on Long Island much earlier than usual--we first observed it July 25. The disease, however, has not develed during the past two weeks owing to dry weather. (Clayton, August 15).

Massachusetts: Bean anthracnose (Colletotrichum lindemuthianum) common at the Market Garden Field Station. Infection noted as follows:

Free - Rustless Golden Wax, French Horticultural.
Slight-Wardwell's Wax, Pencil Pod Wax, Sure Crop Wax.
Moderate- New Kidney Wax, Sure Crop Stringless.
Severe - Unrivalled Wax, Bountiful. (Guba, August 15).

Colorado: Bean blight, (Bacterium phaseoli) is very abundant this year in the Arkansas River Valley in Colorado, and seems to be most serious on plants that had been frosted previously. (Le Clerg, August 15).

New York: Mosaic appeared on Long Island late in July and at the present time (August 15) many fields of pickles and cucumbers are 100 per cent affected. Eradication of perennial weed hosts failed to give any control this year and similar results were secured last year. (Clayton, August 15).

Maine: Cucumber scab (Cladosporium cucumerinum), reports indicate that as usual this will be the only severe disease of cucumbers in Maine. (Folsom, September 1).

Oregon: Tomato bacterial leaf spot appeared in seedling flats in Yamhill county, Oregon, doing considerable damage (April). Isolations gave an organism similar in general appearance to Bacterium vesicatorium (Bacterium exitiosum). Affected seedlings potted and placed in greenhouse recovered and showed no trouble after planting in the field. This is the first and only report of such a trouble in Oregon though the grower states that the trouble bothered him two years ago. (McKay, August 15).

Oregon: Tomato curly top or western yellow blight (Virus). None this year in Western Oregon. Less serious in Eastern Oregon than usual. Good crops are anticipated around The Dalles, Wasco County, where the crop was a total failure in 1926. (Dykstra, August 15).

West Virginia: Tomato leaf spot (Septoria lycopersici) Infection occurs generally. In most of the plantings at this time all the leaves on the lower half of the plant are dead. In a number of cases in Ohio Valley and the southern part of the state, all the leaves have been killed and the plants are dying. (Archer, September 1).

FLORIDA COTTON DISEASES

Cotton wilt, (Fusarium vasinfectum Atk.) is serious in cotton growing sections of the state. Loss as high as 75 per cent in a few fields visited. Found in all cotton growing sections, but probably doing from 3 to 5 per cent damage in the state as a whole.

Angular leaf spot of cotton, (Pseudomonos malvaacearum). Leaf injury very common in all cotton growing sections of Florida. Some defoliation, but not serious. Dead arm and boll rots found, but in no quantity.

Cotton boll rot, (Fusarium species). Fusarium boll rot common but severe only in rankest growth. Damage in some scattered fields estimated as high as 20 per cent. Generally less than 3 per cent.

Cotton rust (Physiological) is just beginning to show up when last visit was made to West Florida latter part of July. Restricted to fields of low vigor and generally poor care.

Cotton boll rot, (Colletotrichum gossypii). For the past two years it has been almost impossible to find this disease. No bolls have been found with disease this year.

Cotton boll rot, (Diplodia gossypina). Most serious boll rot disease in Florida. Damage seldom greater than five per cent except in wettest and rankest section of a field. (Walker, September 1).

TOBACCO DISEASES IN THE VIRGINIAS

Virginia: Tobacco wildfire, (Bacterium tabacum). Wildfire was found generally distributed in one field of tobacco in Pittsylvania County on August 17.

Tobacco Blackfire, (Bacterium angulatum). Blackfire was found in practically all fields visited in Washington County on July 27.

Tobacco ring-spot, (Virus). Traces of ring-spot were found in fields in Bedford, Appomattox, Buckingham, Halifax and Pittsylvania Counties during the period August 13 to 17 inclusive.

Tobacco mosaic, (Virus). During the third week of August, plants in a few fields in Bedford, Appomattox, and Buckingham Counties were found to be infected to the extent of 75 to 95 per cent. In some fields only occasional plants showed disease symptoms. (Angell, August 21).

West Virginia: Tobacco wilt, (Fusarium oxysporum nicotianae). The majority of the infection occurs in low wet portions of fields. In the experimental plots at Point Pleasant, infection was extremely severe. However, the infection percentage for the entire district is probably less than 1 per cent.

Tobacco ring spot. (Virus) Ring spot was seen only on rare scattered plants.

Tobacco mosaic, (Virus). Generally distributed although some fields seem to be comparatively free.(Archer, Sept.1).

BACTERIAL BLIGHT OF LILAC

Maine: A blight of lilacs occurring in Castine, Maine, on valuable imported French lilacs has been identified as the bacterial blight caused by Bacterium syringae. Specimens were received from Dr. Donald Folsom of the Maine station for verification of his diagnosis. (Bryan, August 28).

WANTED

Specimens of club-root of cabbage.

Dr. J. F. Barrett, University of California, Berkeley, California, would like a quantity of club root material for class study. It is suggested that the specimens be soaked in a formaldehyde solution previous to shipping in order to prevent deterioration enroute. Any collaborator who has ready access to club root material will be doing Dr. Barrett a favor by sending some of it to him.

A CORRECTION

Dr. Charles Chupp states that the report on wheat diseases in New York which appeared in the preceding issue of the Reporter, (page 72), should have been credited to Mr. J. G. Horsfall.